



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,405	01/09/2002	David Scott Groothuis	32227	8996

23589 7590 05/21/2003

HOVEY WILLIAMS TIMMONS & COLLINS
2405 GRAND BLVD., SUITE 400
KANSAS CITY, MO 64108

EXAMINER

ROSENBERGER, RICHARD A

ART UNIT PAPER NUMBER

2877

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,405	GROOTHUIS ET AL.	
	Examiner	Art Unit	
	Richard A Rosenberger	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1,3,4,6,7,10-12 and 14 is/are rejected.
- 7) ☐ Claim(s) 2,5,8,9,13 and 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 6, 7, 10-12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danielson et al (US 5,801,834) in view of Ankerhold et al (US 5,767,976).

Danielson et al shows the basic claimed structure including a laser scanning system for determining frame or unibody alignment of a vehicle. There are reflective targets (12) placed in known relationship relative to selected vehicle reference points, and a laser scanning assembly operable to direct a laser beam toward the targets. There are detectors to receive light reflected from the targets.

Danielson et al does not show using a parabolic reflecting surface to collect and focus the light beam onto the detector. Danielson et al does teach collecting and focusing the reflected light, but uses a lens (80) for this function; the reference teaches "[t]he type of lens may be varied, as long as it can be used to focus light" (column 6, lines 59-60), that is, that it is the function of focussing, and not the particular means for focussing, which is of importance to the invention.

It is known in the art the light can be collected and focussed onto a detector not only with lenses, but with parabolic reflectors as well; Ankerhold et al shows this; light is projected, reflects from a reflective target or the like and is detected by a detector, with the light being collected and focussed onto the detector by a parabolic mirror.

It would have been obvious to use a parabolic mirror rather than a lens to collect and focus the reflected light in the system of Danielson et al because Danielson et al does not teach there is any criticality in the particular means for collecting and focussing, and the use of such parabolic reflectors are known in the art for the function taught by Danielson et al of collecting and focussing the reflected light.

Danielson has a pair of rotating mirrors to scan two light beams across the targets; see the two scanning mirrors 44 in figure 3. The function of the mirrors is to scan the light beam, and other configurations of the scanning mirrors and associated system would have been obvious because such other configuration would also perform the function of scanning the laser beams across the target. Protecting the scanning mirrors by having them located within a housing would have been obvious.

It is known in the art to direct a light beam through an opening in a mirror which receives and directs returned or reflected light; see claims 19A and 19B of

Danielson et al, and the opening (22) in the parabolic mirror (20) of Ankerhold et al. The use of this known arrangement in a system such as shown by Danielson et al would have been obvious because it is a known manner of projecting and receiving a light beam. Danielson projects two light beams and two detectors, using such a system for both would have been obvious because each performs the some function for the same purpose.

The targets of Danielson et al are individually coded (column 9, line 57 through column 10, line 10).

3. The art does not teach or suggest having a pair of laser units spaced apart vertically in a system such as is shown by Danielson et al, thus claim 2 contains allowable subject matter, as do claims 13 and 15. Similarly, the art does not teach or suggest having a pair of spaced apart openings in the parabolic reflector with means to direct a laser beam through each of the openings, thus claims 8 and 9 contain allowable subject matter.

Claim 5 sets forth that the rotating mirrors "comprise an upright mirror having a relatively wide reflective surface and a relatively narrow reflective edge". This is not shown by the art; claim 5 thus contains allowable subject matter.

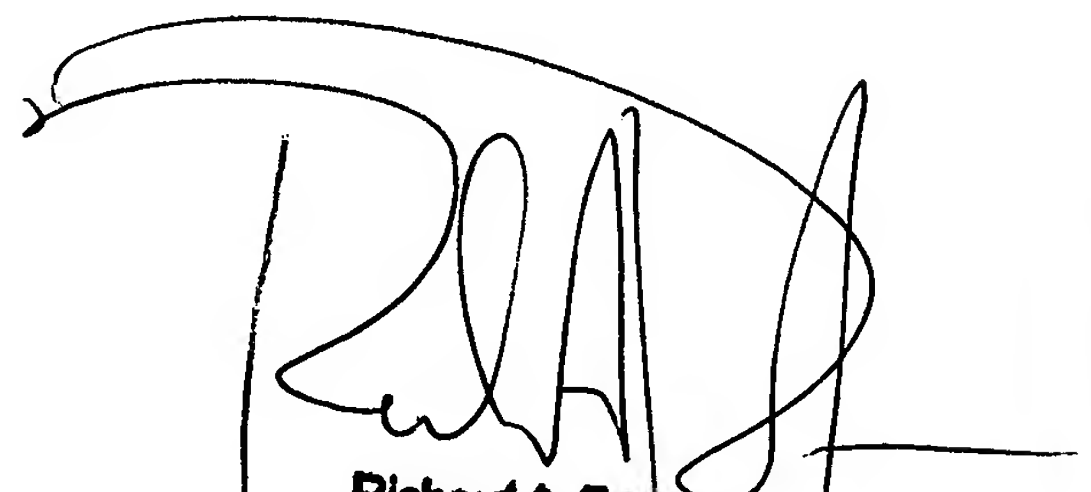
These claims are objected to as being dependent upon unallowed claims , but would be allowable if rewritten in independent form including all of the limitations of their respective parent claims.

4. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804. The examiner's normal work schedule is 8:00 to 4:30 eastern time, Monday through Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger
14 May 2003



Richard A. Rosenberger
Primary Examiner